

## WATERSHED MANAGEMENT AREA 16

### CAPE MAY DRAINAGE

The watershed management area includes watersheds draining the Cape May portion of New Jersey. The region includes Cape May County south and east of the Tuckahoe River watershed. The region contains minimal surface water flow. Ground water and shellfish harvesting water quality are the principal water issues. No fixed physical/chemical fresh (surface) water monitoring locations are currently located within this management area. The area includes the following watersheds:

Dennis Creek

Delaware Bay Coastal  
Drainage

Cape May Atlantic  
Coastal Drainage

Cape May County is located at the southern-most point of New Jersey and represents a continuation of the Atlantic Coastal Plain. The county is 267 square miles in area and is bounded on the north by Atlantic and Cumberland Counties, on the east by the Atlantic Ocean and on the west and south by the Delaware Bay. The region represents a low lying, gently rolling plain whose highest point is 54 feet above sea level and whose surface is largely covered by wet soils and wetlands. Large swamps (Great Cedar, Timber and Beaver Swamps) occupy the north-central part of the county. Most, if not all, streams are tidal in their lower reaches and terminate by flowing into fresh water swamps that, in turn, discharge into saltwater marshes near the shore.

The county's permanent year-round population is about 77,000, with approximately 42 percent of the population residing on the barrier islands that comprise the eastern perimeter of the peninsula. The summertime population rises to 564,000, with 69 percent residing on the barrier islands.

As stated previously, one of the principal water resource issues within this management area is drinking water supply. The resource is largely dependent upon ground water that is in turn highly vulnerable to saltwater intrusion from the west, south and east, especially in the southern portion of the peninsula. The expected increase in population (an expected 68 percent increase by 2040) is predicted to put further stress on the already overextended water supply.

### OVERALL MANAGEMENT AREA ASSESSMENT

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- **Swimmable Support Status:** Status on inland waters not reported here; no fixed physical/chemical fresh water monitoring locations are currently located within this region.

- **Summary of Aquatic Life Support Status (Number of stations within each assessment category).** Note: See the Biological Assessment

Table located at the end of this section for details regarding macroinvertebrate assessments within the management area.

No Impairment: 0

Mod. Impairment: 2

Severe Impairment: 4

**MAPS here**

## **WATER QUALITY ASSESSMENT**

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Nontidal surface water quality assessments in this region are limited to in-stream macroinvertebrate assessments on streams in the northwestern part of the county and the western drainage of the peninsula (see the Biological Assessment Table located at the end of this section). Most monitoring locations were assessed as severely impaired. Moderate impairment was observed at two locations - West Creek in Maurice Township and Savage Run in Dennis Township.

Shellfish classifications within the coastal estuary and bay network of the region include approved, seasonal, special restricted, and prohibited waters, depending on location. A somewhat simpler pattern exists in the ocean waters where large tracts of water are classified as either approved or prohibited.

Of particular concern in Cape May is the saltwater encroachment that is occurring in the shallow aquifer system within the peninsula as a result of increasing withdrawals for public supply. This has necessitated the abandonment and sealing of formerly productive freshwater wells. This shallow aquifer system consists of three aquifers - a water table aquifer, and two confined aquifers (estuarine sand and the Cohansey). Large withdrawals of water for public supply from the two confined aquifers at the Rio Grande, Cape May City and Lower Township well fields have lowered ground-water levels below sea level in a large area of the peninsula and offshore, causing an inward migration of saline ground water towards these wellfields. Large withdrawals from the deeper Atlantic City 800-foot sand aquifer in Cape May, Atlantic and Ocean Counties (a fourth aquifer system that underlies the three systems mentioned above) will likely impact wells in southern Cape May County. This impact is not expected, however, for several decades and perhaps for several hundred years.

## **DESIGNATED USE ASSESSMENT**

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Most assessed fresh water locations fail to support the aquatic life support designated use. Some locations partially support the use; no assessed locations were found to fully support this use. All freshwater public bathing areas in this region are monitored by the Cape May County Health Department for sanitary conditions reflecting swimmable quality. Readers interested in local sanitary water quality are directed to this agency.

Support of shellfish harvesting, both in the bays and ocean, range from full to no support, depending upon location.

# **BIOLOGICAL ASSESSMENT TABLE: AREA 16**

Mgt Area	Watershd	Site ID	Water Body	Location	Municipality	Sample Date	Biological Impairment Rating
16	93	AN0765	W Ck	Rt 550	Maurice R Twp	Feb 22, 1996	moderately impaired
16	93	AN0766	Savages Run	Sunset Rd	Dennis Twp	Feb 22, 1996	moderately impaired
16	93	AN0767	Dennis Ck trib	Rt 47 (blw Dennisville Lk)	Dennis Twp	Feb 27, 1996	severely impaired
16	93	AN0769	Old Robins Br	Beaver Causeway	Dennis Twp	Feb 29, 1996	severely impaired
16	96	AN0770	Green Ck	Rt 47	Middle Twp	Feb 27, 1996	severely impaired
16	96	AN0771	Fishing Ck	Rt 47	Middle Twp	Feb 27, 1996	severely impaired

